

III. Remarks

The original claims have been canceled in favor of new claims 24-27 and reconsideration of this application in light of these amendments and the following remarks is respectfully requested.

New independent claim 24 has been drafted to distinguish over the patents applied in the above office action and is allowable for the following reasons.

Although some of the previous claims were rejected under 35 U.S.C. §102 as being anticipated by Maki, Jr. et al., and Soliman et al., these patents are not applicable to claim 24 for the following reasons.

New claim 24 recites the combination of a screening device for supporting a gravel pack in the wellbore, a tool adapted to be inserted in the wellbore, a sensor mounted to the tool for sensing scale accumulation on the screening device and outputting a signal when the scale accumulation exceeds a predetermined value, a driver mounted on the tool for supplying electrical power when it is activated, a microprocessor mounted on the tool and responsive to the signal for activating the driver, and a transducer mounted on the tool and adapted to vibrate in response to the supply of electrical power when the driver is activated to remove the scale from the screening device and stimulate the formation.

The PTO provides in MPEP §2131 that:

"[t]o anticipate a claim, the reference must teach every element of the claim."

Therefore, to support these rejections with respect to new claim 24, the Maki, Jr. et al. and Soliman et al. patents each must contain all of the above-claimed elements of the claim. However, neither the Maki, Jr. et al. patent nor the Soliman et al. patent discloses a microprocessor mounted on the tool and responsive to the signal for activating the driver.

As a result, the previous rejections based on 35 U.S.C. §102 cannot be supported by the Maki, Jr. et al. and Soliman et al. patents as applied to new claim 24.

Some of the previous claims were rejected under 35 U.S.C. §103(a) as being unpatentable over Soliman et al. in view of Flanders et al. However, this rejection is not applicable to new claim 24 for the following reasons.

As the PTO recognizes in MPEP §2142:

The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

The examiner clearly cannot establish a *prima facie* case of obviousness in connection with claim 24 since 35 U.S.C. §103(a) provides that:

[a] patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains ... (emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, Soliman et al. and Flanders et al., alone, or in combination, do not teach the combination of a screening device for supporting a gravel pack in the wellbore; a tool adapted to be inserted in the wellbore; a sensor mounted to the tool for sensing scale accumulation on the screening device and outputting a signal when the scale accumulation exceeds a predetermined value; a driver mounted on the tool for supplying electrical power when it is activated; a microprocessor mounted on the tool and responsive to the signal for activating the driver; and a transducer mounted on the tool and adapted to vibrate in response to the supply of electrical power when the driver is activated to remove the scale from the screening device and stimulate the formation.

Rather, Soliman, et al. is directed to the removal of particles from a well bore and does not teach a screening device for supporting a gravel pack in a well bore, nor a sensor for sensing scale accumulation on the screening device which scale is removed by a vibrating transducer.

Flanders et al. is limited to a fishing tool that is inserted into a well bore and attached to a pipe that is stuck in the well bore, and to a vibratory device that is attached to the pipe and actuated to free up the pipe. Thus, Flanders et al. is also lacking in a disclosure of a screening device for supporting a gravel pack in a well bore and was not concerned with the accumulation of scale in any form.

Therefore, it is impossible to render the subject matter of claim 24 as a whole obvious based on any combination of the Soliman et al. and the Flanders et al. patents, and the above explicit terms of the statute cannot be met. As a result, the examiner's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to claim 24, and a rejection under 35 U.S.C. §103(a) is not applicable.

There is still another compelling, and mutually exclusive, reason why the Soliman et al. and Flanders et al. patents cannot be combined and applied to reject claim 24 under 35 U.S.C. §103(a).

The PTO also provides in MPEP §2142:

[T]he examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. ...[I]mpermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

Here, neither Soliman et al. nor Flanders et al. teach, or even suggest, the desirability of the combination since neither teaches or suggests the combination of a screening device for supporting a gravel pack in the wellbore, a tool adapted to be inserted in the wellbore, a sensor mounted to the tool for sensing scale accumulation on the screening device and outputting a signal when the scale accumulation exceeds a predetermined value; a driver mounted on the tool for supplying electrical power when it is activated, a microprocessor mounted on the tool and responsive to the signal for activating the driver, and a transducer mounted on the tool and adapted to vibrate in response to the supply of electrical power when the driver is activated to remove the scale from the screening device and stimulate the formation.

Rather, since Flanders et al. is directed solely to a fishing tool for pipes that are stuck in a well bore, it can be appreciated that neither Flanders et al. nor Soliman et al. provide any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103(a) rejection of claim 24.

In this context, the MPEP further provides at §2143.01:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (emphasis in original)

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case it is clear that the examiner's combination arises solely from hindsight based on the invention (as claimed in the cancelled claims) without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claim 24. Therefore, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to claim 24, and the rejection under 35 U.S.C. §103(a) is not applicable.

There is still another compelling, and mutually exclusive, reason why the Soliman et al. and the Flanders et al. patents cannot be combined and applied to reject claim 24 under 35 U.S.C. §103(a). In particular, claim 24 recites a system for removing scale accumulation from a screening device down hole in a well bore, while the Flanders et al. patent is directed to a fishing tool for pipes that are stuck in a well bore. 35 U.S.C. §103(a) requires that obviousness be determined on the basis of whether at the time the invention was made a person of ordinary skill in the art to which the subject matter pertains would have found the claimed invention as a whole obvious. Although one of ordinary skill in the art is presumed to be aware of all prior art in the field to which the invention pertains, he or she is not presumed to be aware of prior art outside that field and the field of the problem to be solved, i.e., nonanalogous art. Accordingly, in assessing the propriety of any assertion of prior art as a basis for a *prima facie* case of obviousness, one must determine the scope or bounds of the knowledge of one of ordinary skill in the art, i.e., the analogous art presumably known by one of ordinary skill in the art.

Here, since fishing for a stuck pipe is clearly outside the field of removing scale accumulation on a screening device, the Flanders et al. patent is clearly from a nonanalogous art, thus precluding any *prima facie* case of obviousness.

Thus, for this independent reason alone, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection under 35 U.S.C. §103(a) should be withdrawn.

Dependent claim 25 depends from, and further limits, independent claim 24 in a patentable sense and therefore is allowable as well.

New independent claim 26 is a method version of claim 24, and therefore is allowable for the reasons indicated above.

New method claim 27 is directed to the embodiment described at paragraph 25 of the application and is directed to a method for use in a well bore penetrating a formation, and comprising supporting a gravel pack in the wellbore by a screening device; sensing scale accumulation on the screening device; vibrating a transducer in the well bore to remove scale from the screening device; monitoring down-hole pressure; monitoring the rate of vibration; calculating the cumulative skin factor of the well bore based on the monitored pressure and rate of vibration; and terminating the vibration when the skin factor levels off below a predetermined value indicating that a corresponding amount of cleaning has taken place.

Maki, Jr. et al., Soliman et al., and Flanders, et al. do not, even remotely, teach or suggest this concept since, for example, none of the patents teach calculating the cumulative skin factor of the well bore based on the monitored pressure and rate of vibration of a transducer; and terminating the vibration when the skin factor levels off below a predetermined value indicating that a corresponding amount of scale cleaning has taken place.

Thus, the previous rejections based on the patents to Maki, Jr. et al., Soliman et al., and Flanders, et al. are not applicable to new claim 27.

In view of all of the above, the allowance of claims 24-27 is respectfully requested.

The examiner is invited to call the undersigned at the below-listed telephone number if a telephone conference would expedite or aid the prosecution and

examination of this application.

Respectfully submitted,



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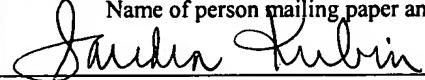
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